

WE CLAIM:

1. In a process for the production of 1,3-propanediol wherein an aqueous solution of 3-hydroxy propanal is formed, catalyst, if any, used in said formation is removed from the solution, sodium hydroxide is added to the solution to neutralize any acid therein such that the pH is at least about 5, the neutralized aqueous solution is subjected to hydrogenation to produce a crude 1,3-propanediol mixture which is distilled to produce 1,3-propanediol, water, and reactive heavy components, the improvement which comprises replacing the sodium hydroxide with a hydroxide selected from the group consisting of ammonium hydroxide, alkali metal hydroxides other than sodium hydroxide, and alkaline earth metal hydroxides to reduce the viscosity of the reactive heavy components.

2. The process of claim 1 wherein the pH is adjusted to the range of about 5 to about 6.

3. The process of claim 1 wherein the hydroxide which replaces the sodium hydroxide is selected from the group consisting of potassium hydroxide, calcium hydroxide, barium hydroxide, ammonium hydroxide, lithium hydroxide, strontium hydroxide, rubidium hydroxide, and cesium hydroxide.

4. The process of claim 3 wherein the hydroxide which replaces the sodium hydroxide is selected from the group consisting of potassium hydroxide, calcium hydroxide, barium hydroxide, and ammonium hydroxide.

5. The process of claim 4 wherein the hydroxide which replaces the sodium hydroxide is potassium hydroxide.

6. A reactive heavy components stream having a viscosity of less than about 100 mm²/s at 40°C, said stream formed by forming an aqueous solution of 3-hydroxy propanal, removing any catalyst used from the solution, adding to the solution a hydroxide selected from the group consisting of ammonium hydroxide, alkali metal hydroxides, other than sodium hydroxide, and alkaline earth metal hydroxides to neutralize any acid therein such that the pH is at least about 5, subjecting the neutralized aqueous solution to hydrogenation to produce a crude 1,3-propane diol mixture, and distilling said crude mixture to produce 1,3-propane diol, water, and the reactive heavy components stream.

7. The reactive heavy component stream of claim 6 wherein the pH is adjusted to the range of about 5 to about 6.

8. The reactive heavy component stream of claim 6 wherein the hydroxide which replaces the sodium hydroxide is selected from the group consisting of potassium hydroxide, calcium hydroxide, barium hydroxide, ammonium hydroxide, lithium hydroxide, strontium hydroxide, rubidium hydroxide, and cesium hydroxide.

9. The reactive heavy components stream of claim 8 wherein the hydroxide which replaces the sodium hydroxide is selected from the group consisting of potassium hydroxide, calcium hydroxide, barium hydroxide, and ammonium hydroxide.

10. The reactive heavy component stream of claim 9
wherein the hydroxide which replaces the sodium hydroxide
is potassium hydroxide.